



DEPARTMENT of ENVIRONMENT and NATURAL RESOURCES
Minerals & Mining Program - Oil & Gas Section
2050 West Main, Suite #1, Rapid City, SD 57702-2493
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FORM 2

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MAR 15 2004

DEPT OF ENVIRONMENT & NATURAL
RESOURCES - RCRO

APPLICATION FOR PERMIT TO DRILL

Type of work:

☒ Drill New Well Reenter Well ☒ Drill Directional Well
Other _____

Type of well:

☒ Oil Well Gas Well Injection
☒ Other Horizontal

Name and Address of Operator:

LUFF EXPLORATION COMPANY 1580 LINCOLN ST. SUITE 850 DENVER, CO

Telephone

303-861-2468

Name and Address of Surface Owner:

Merle R. & Bettyna Johnson HC 63, Box 26, Ludlow, SD 57755

Name and Address of Drilling Contractor and Rig Number:

NABORS DRILLING USA, WILLISTON, ND AND C&H WELL SERVICE, GILLETTE, WY.

Surface Location of well: Qtr-Qtr, Sec, Twp, Rge, County, feet from nearest lines of section, and latitude and longitude (if available):
NENW SEC. 8-22N-6E HARDING CO. 1150' FNL & 1980' FWL

If Directional, top of pay and bottom hole location from nearest lines of section:

TOP @ 8934'MD=8875'TVD: SE LEG BHL - 1320' FNL & 500' FEL SEC. 8; SW LEG BHL 1320' FNL & 1320' FEL Sec. 7

Acres in Spacing (Drilling) Unit

Total Unitized Area - 3327.38 ac

Description of Spacing Unit

East Harding Springs Red River Unit

Well Name and Number		Elevation	Field and Pool, or Wildcat		Proposed Depth and Formation	
EHSRRU C-8H		2915.5 GRD Un-graded	E. HARDING SPRINGS RED RIVER UNIT - RED RIVER Fm		SE leg 11,635' MD=8875' TVD SW leg 12,130' MD=8875' TVD	
Size of Hole	Size of Casing	Weight per Foot	Depth	Cementing Program (amount, type, additives)		Depth
1) 12 1/4	8 5/8	24	1500	500 sx Premium w/3% salt, 1/4#/sk polyflakes		Surf.
2) 7 7/8	5 1/2	15.5, 17, 23	9000	750 sx Premium & Litepoz, two stage		4200'
3)						

Describe Proposed Operations (Clearly State all Pertinent Details, and Give Pertinent Dates, Including Estimated Date of Starting any Proposed Work). Use additional page(s) if appropriate.

Drill a vertical well to approx. 9000'. DST the Red River B zone and run logs at TD. Run and cement 5 1/2" csg. Move in smaller rig. Mill csg. window from 8758'-65' w/azimuth of 93 deg. Drill short radius curve and land in the Red River B zone at 8934'MD=8875' TVD. Drill 4 1/2" horizontal lateral to TD of 11635'MD=8875'TVD and BHL 1320' FNL & 500' FEL of Sec. 8. Mill second window from 8748'-55' w/ azimuth of 267 deg. Drill short radius curve and land in Red River B at 8939'MD=8875'TVD. Drill 4 1/2" horizontal lateral to TD of 12,130'MD=8875'TVD at BHL 1320' FNL & 1320' FEL Sec. 7. See attached directional drilling plan. Oil base mud will be used to drill the vertical hole and fresh water/polymer fluid to drill the horizontal laterals. All drilling fluids will be contained in a lined pit. Cuttings and liner will be buried in place. Completion will be through open hole. Anticipate starting operations in mid-April.

I hereby certify that the foregoing as to any work or operation performed is a true and correct report of such work or operation.

Robert C. Arceneaux
Signature

Robert C. Arceneaux
Name (Print)

Operations Mgr.
SOUTH DAKOTA 3-11-04
STATE GEOLOGICAL SURVEY
WESTERN FIELD OFFICE
Date

FOR OFFICE USE ONLY

Approved By:

Fred N. Steece

Title: Oil & Gas Supervisor

Permit No. 1705

API No. 40 063 20579

Date Issued: 03/26/2004

Conditions, if any, on attached page.